AMENDMENT TO THE CLAIMS

Applicants selectively amend the claims as follows:

Listing of Claims:

1   1. (Currently Amended) An apparatus comprising:

2   a data path output unit to output a packet header <u>for a transaction layer packet</u>, the packet

3   header including:

4   a format field to partially specify the packet header format<u>, to specify whether the</u>

5   <u>transaction layer packet includes a data payload and to specify a size of the packet</u>

6   <u>header</u>; and

7   a type field to specify a transaction type, <u>the transaction type to include at least</u>

8   <u>one selected from the following group of: a memory request, an input/output request, a</u>

9   <u>configuration request, a message request and a completion</u>, wherein the format field and

10   the type field together specify the packet header format~~, the format field also indicates the~~

11   ~~size of the packet header and whether the packet includes data.~~

1   2-4. (Canceled).

1   5. (Previously Amended) The apparatus of claim 1, wherein the format field and the type field

2   are located in the first byte of the packet header to be output by the data path output unit.

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1   6. (Currently Amended) An apparatus comprising:

2   a data path input unit to receive a packet header for a transaction layer packet, the packet

3   header including:

4   a format field to partially specify the packet header format, to specify whether the

5   transaction layer packet includes a data payload and to specify a size of the packet

6   header; and

7   a type field to specify a transaction type, the transaction type to include at least

8   one selected from the following group of: a memory request, an input/output request, a

9   configuration request, a message request and a completion, wherein the format field and

10   the type field together specify the packet header format, the format field also indicates the

11   size of the packet header and whether the packet includes data.

1   7-9. (Canceled).

1   10. (Previously Amended) The apparatus of claim 6, wherein the format field and the type field

2   are located in the first byte of the packet header to be output by the data path output unit.

1   11. (Currently Amended) A system comprising:

2   a transmitting device to transmit a packet header for a transaction layer packet, the packet

3   header including:

4   a format field to partially specify the packet header format, to specify whether the

5   transaction layer packet includes a data payload and to specify a size of the packet

6   header,

1   a type field to specify a transaction type, <u>the transaction type to include at least</u>

2   <u>one selected from the following group of: a memory request, an input/output request, a</u>

3   <u>configuration request, a message request and a completion</u>, wherein the format field and

4   the type field together specify the packet header format, the format field also indicates the

5   size of the packet header and whether the packet includes data; and

6   a receiving device coupled to the transmitting device, the receiving device to receive the

7 packet header.

1 12-14. (Canceled).

1 15. (Previously Amended). The system of claim 11, wherein the transmitting device and the

2 receiving device are coupled via a serial interface.

1 16. (Original). The system of claim 15, wherein the format field and the type field are located in

2 the first byte of the packet header to be output by the transmitting device.

1 17-18. (Canceled).

1 19. (Currently Amended) An apparatus comprising:

2   a data path output unit to output a packet header for a transaction layer packet, wherein

3 the packet header includes:

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4   a format field to partially specify the packet header format, to specify whether the

5   transaction layer packet includes a data payload and to specify a size of the packet

6   header; and

7   a type field to specify a transaction type, the transaction type to include one of a

8   request or a completion, wherein the format field and the type field are located in the first

9   byte of the packet header and together specify the packet header format, the format field

10   also indicates ~~the size of the packet header and~~ whether the transaction layer packet

11   includes ~~a data~~ payload data that is four-byte, naturally aligned and limited in size by a

12   maximum data payload ~~value~~ size.

1   20. (Currently Amended) The apparatus of claim 19, wherein the transaction type ~~comprises~~ to

2   include one of a request or a completion comprises the request to include at least one selected

3   from the following group of: a memory request, an input/output request, a configuration

4   request and a message request.

1   21. (Canceled).

1   22. (Currently Amended) The apparatus of claim ~~21~~ 19, wherein the ~~completion~~ transaction type

2   ~~comprises~~ to include one of a request or a completion comprises the completion to include at

3   least one selected from the following group of: a return read data completion, an

4   acknowledge completion of an input/output request and an acknowledge completion of a

5   configuration write transaction.

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1   23. (New) The apparatus of claim 19, wherein the format field further specifies a size of the

2   packet header.

1   24. (New) The apparatus of claim 23, wherein the size of the packet header is based on a 32-bit

2   addressing format.

1   25. (New) The apparatus of claim 23, wherein the size of the packet header is based on a 64-bit

2   addressing format.

1   26. (New) The apparatus of claim 1, wherein the format field further specifies a size of the

2   packet header.

1   27. (New) The apparatus of claim 26, wherein the size of the packet header is based on a 32-bit

2   addressing format.

1   28. (New) The apparatus of claim 27, wherein the size of the packet header is based on a 64-bit

2   addressing format.

1   29. (New) The apparatus of claim 1, wherein the packet header comprises the packet header

2   including a length field, the length field to specify the length of payload data.

1 30. (New) The apparatus of claim 1, the packet header further including a length field, wherein

2   if the type field specifies the transaction type as a message and the message specifies a data

3   length, the length field specifies the data length.

1 31. (New) The apparatus of claim 1, wherein the transaction type specified in the type field is a

2   memory request and the memory request comprises a memory write request.

1 32. (New) The apparatus of claim 31, the packet header further including a byte enable field to

2   specify which bytes at a beginning portion of a data payload for the transaction layer packet

3   are enabled, the beginning portion to include a first 4 bytes of data in the payload data,

4   wherein the byte enable field includes 4 bits, each bit to correspond to a given byte in the

5   first 4 bytes of data, a value of 1 in each bit to specify that a corresponding given byte is

6   enabled, enabled to include an indication to a logical device addressed by the packet header

7   to write the corresponding given byte to a memory.

1 33. (New) The apparatus of claim 32, the packet header further including another byte enable

2   field to specify which bytes at an ending portion of a data payload for the transaction layer

3   packet are enabled, the ending portion to include a last 4 bytes of data in the payload data,

4   wherein the byte enable field includes 4 bits, each bit to correspond to a given byte in the last

5   4 bytes of data, a value of 1 in each bit to specify that a corresponding given byte is enabled.

1 34. (New) The apparatus of claim 6, wherein the format field further specifies a size of the

2   packet header.

1   35. (New) The apparatus of claim 34, wherein the size of the packet header is based on a 32-bit

2   addressing format.

1   36. (New) The apparatus of claim 35, wherein the size of the packet header is based on a 64-bit

2   addressing format.

1   37. (New) The apparatus of claim 6, wherein the packet header comprises the packet header

2   including a length field, the length field to specify the length of payload data.

1   38. (New) The apparatus of claim 37, wherein the data path input unit is to compare the length

2   specified in the length field to an actual length of the payload data and to treat the transaction

3   layer packet as a malformed transaction layer packet based on the actual length not matching

4   the length specified in the length field.